

## PICTURE OF THE MONTH

E. W. FERGUSON AND F. C. OPATKA

National Environmental Satellite Center,  
Environmental Science Services Administration, Washington, D.C.

A cold polar outbreak on November 2, 1966 brought record-breaking low temperatures and snowfall to many parts of the central and southeastern United States. The surface map for 1800 GMT (fig. 1), shows a surface Low in eastern Kentucky and snow falling as far south as Montgomery, Ala.

Figure 2 shows the cloud pattern associated with this system. The broad multilayered cloud band between points A and B is the cold front; the narrow cloud bands around C are in the cold air west of the front. Clouds associated with the early snowfall extend in a broad

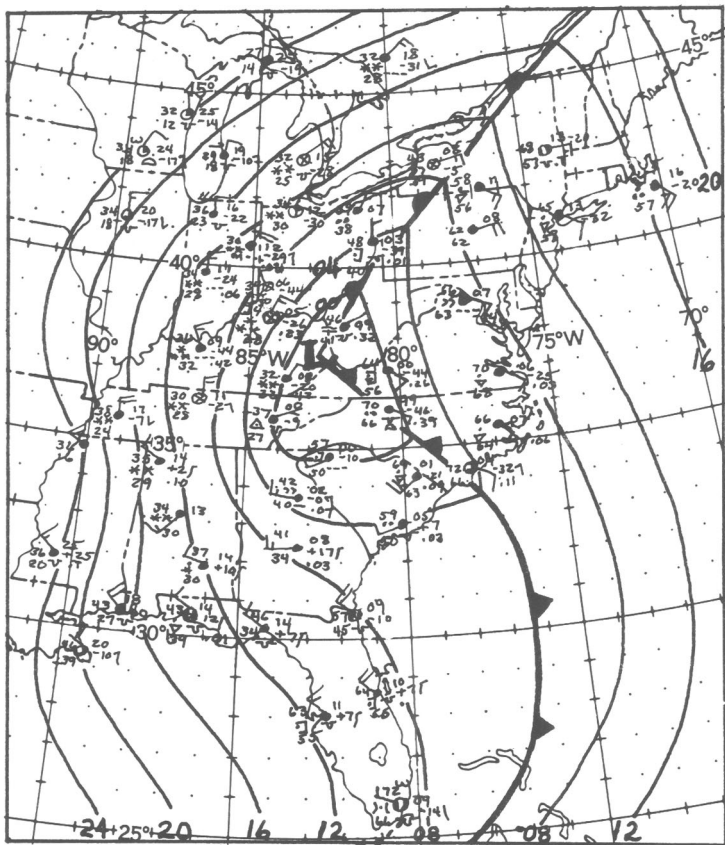


FIGURE 1.—Surface chart 1800 GMT, November 2, 1966.

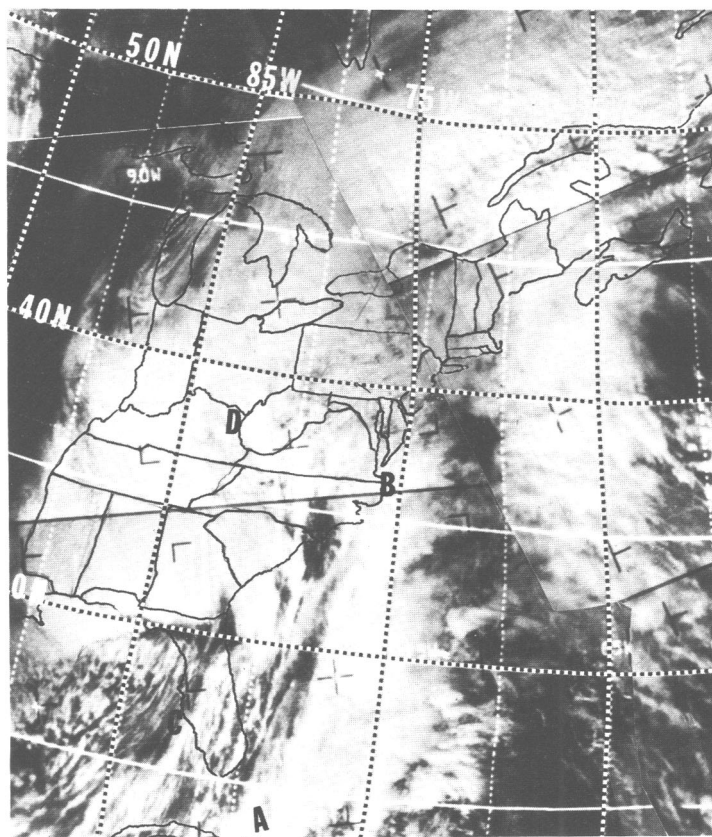


FIGURE 2.—ESSA 3 photomosaic. Passes 392-393, 1632-1832 GMT, November 2, 1966.

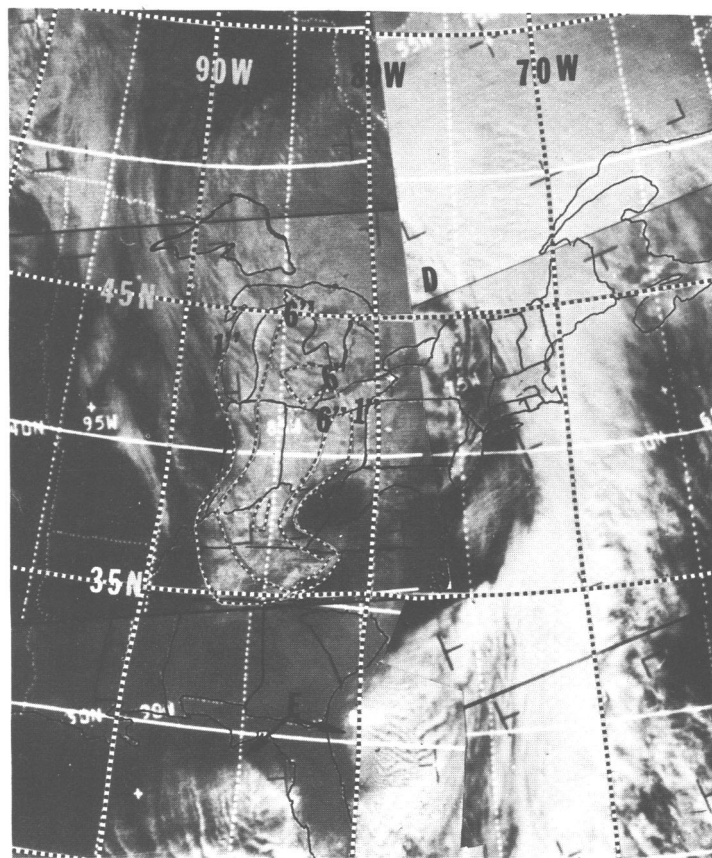


FIGURE 3.—ESSA 3 photomosaic. Passes 405-406, 1721-1916 GMT, November 3, 1966. The narrow dashed lines near the center of the picture are snow depth contours for 1200 GMT, November 3, 1966. The closed contour in central Kentucky indicates a 15-in. snow accumulation.

semicircle to the northwest and southwest of the low center near point D.

Figure 3 shows this area 24 hours later. The storm center (D) has moved into southwestern Quebec and the cold frontal band is located off the east coast of the United States. To the rear of the front, the cloud bands at E are the result of cold air advection over the relatively warm waters of the Gulf of Mexico and the western Atlantic. The new snowfall left in the wake of the storm is visible from northern Alabama to the Great Lakes. The 1-in. and 6-in. snow depth contours in this figure outline the areas of new snow. The closed contour over central Kentucky shows the area of 15-in. snow accumulation.

This snowfall was 4 to 6 weeks earlier than the average date of occurrence of 1 in. or more in lower Michigan, eastern Indiana, and western Ohio. Nashville, Tenn. recorded 5 in. of snow, while some areas of central Kentucky received a foot or more. This was the earliest snow on record in Meridian, Miss. and Montgomery, Ala.

New records for the lowest temperature this early in the season were reported in the eastern Plains and Mississippi Valley. A reading of 10° F. at Topeka, Kans. established a new low for this early in the season and the 28° reported at New Orleans is the lowest on record there for the month of November.